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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/871,108  | 05/31/2001  | Bruce S. Davie       | 112025-0483         | 9825             |
| 24267   | 7590        | 09/16/2004           | EXAMINER            |                  |
| CESARI AND MCKENNA, LLP<br>88 BLACK FALCON AVENUE<br>BOSTON, MA 02210 |             |                      | HOSSAIN, TANIM M    |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2141                |                  |

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/871,108

**Applicant(s)**

DAVIE, BRUCE S.

**Examiner**

Tanim Hossain

**Art Unit**

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/31/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09132004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 1, 6, 7, 11, and 17 are objected to because of the following informalities:

As per claim 1, it should be corrected to read "the received network traffic". Also, "the session group ID" should be changed to "a session group ID".

As per claim 6, there is an "or" missing, to read "one or more".

As per claim 7, the phrase "or more" is incorrectly listed consecutively.

As per claim 11, the claim should read "first resource reservation message" for grammatical correctness.

As per claim 17, the claim should read "Path messages" for grammatical correctness.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the session group ID" pertaining to the one or more second sessions. There is insufficient antecedent basis for this limitation in the claim. There is no antecedent discussion of a session group ID in relation to the second group of sessions. Also in line 5, the second occurrence of "received network traffic" renders the claim ambiguous, as it is unclear whether the network traffic is from a different source.

Claims 1-8 are rejected on the basis of their dependency on claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 7-10, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah (U.S. 6,449,251) in view of Primak (U.S. 6,598,077).

As per claim 1, Awadallah teaches an intermediate network device for use in a computer network carrying network traffic corresponding to sessions, the intermediate network comprising: a traffic scheduler having one or more resources for use in forwarding network traffic received at the device at different rates (column 3, line 61 — column 4, line 11; column 7, lines 7-10, 38-45); a classification engine configured to identify received network traffic based upon pre-defined criteria (column 4, lines 25-33); and a resource reservation engine in communicating relationship with the traffic scheduler and the classification engine (column 4, lines 35-40; where the guaranteed bandwidth implies the existence of a resource reservation engine in communication with the router and classification engine). Awadallah does not specifically teach the use of sharing the resources of sessions having matching identifications. Primak teaches in response to a request to reserve resources for a first session associated with a session group identifier (ID), the resource reservation engine determines whether the session group ID of the first session matches the session group ID of one or more second sessions for which resources have previously been reserved and, if so, directs the traffic scheduler to share the resources reserved for the one or more second sessions with the first session (column 3, lines

2-5; column 8, lines 24-47; where the resources are inherently shared between sessions because requests with the same session ID are routed to the same server.). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Primak in the system of Awadallah, because they are both from the same field of endeavor, namely the efficient routing of resources for network sessions. The motivation for combining the teachings lies in the fact that Primak's teaching adds further efficiency to Awadallah's invention in the event that session IDs are the same for multiple sessions.

As per claim 2, Awadallah in view of Primak teaches the intermediate network device of claim 1 wherein the resource engine includes a data structure for storing information for the sessions (Awadallah: column 6, lines 46-47; where the storing is implied), and the resource reservation engine stores a session group identifier for each session in the data structure (Awadallah: column 6, lines 46-65).

As per claim 3, Awadallah in view of Primak teaches the intermediate network device of claim 2 wherein the session group identifier associated with a given session includes a source address of an entity sourcing the traffic flow of the given session and a resource identifier (Awadallah: column 6, lines 46-65).

As per claim 6, Awadallah in view of Primak teaches the intermediate network device of claim 1, wherein the first and the one or more second sessions originate from a single sourcing entity (Primak: column 8, lines 24-47). Motivations to combine teachings are discussed in the discussion of claim 1.

As per claim 7, Awadallah in view of Primak teaches the intermediate network device of claim 1, but does not specifically teach the origination of sessions from a single sourcing entity

and are directed to multiple destination identities. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this teaching in Awadallah in view of Primak, as it is well known in the art. Any situation in which a single computer interacts with multiple computers constitutes the use of a single sourcing entity directed to multiple destination entities, which is obvious.

As per claim 8, Awadallah in view of Primak teaches the intermediate network device of claim 7 on the basis of obviousness, but does not specifically teach the use of a call waiting context within sessions. In view of Awadallah's discussion of VoIP (Awadallah: column 6, lines 38-45), it would have been obvious to one of ordinary skill in the art at the time of the invention to include this capability, as it is well known in the art. Awadallah discusses Internet telephony (Awadallah: column 1, lines 29-31); and since a call waiting context is well known in the art of Internet telephony, it would have been obvious to include this teaching specifically.

As per claim 9, Awadallah teaches in a computer network having a plurality of entities interconnected by a plurality of intermediate network devices having one or more resources for use in forwarding network traffic corresponding to sessions, a method for sharing resources reserved for a first session with a second session, the method comprising the steps of: receiving a first resource reservation message associated with a first session, the first resource reservation message specifying a session group identifier (ID) (figure 3; column 4, lines 25-40; where the traffic is classified, which constitutes specifying an identifier, and the discussion of guaranteed bandwidth for certain identifications constitutes reservation, where the inherent instructions to reserve resources implies the existence of a message based on session criteria. Receiving this message is implied.); storing the session group ID of the first resource reservation message

(figure 3; column 6, lines 46-47; where the storing is implied); reserving the resources for use with the first session (column 4, lines 25-40; where the discussion of guaranteed bandwidth for certain identifications implies reservation); receiving a second resource reservation message associated with a second session, the second resource reservation message corresponding to a session group ID (column 4, lines 25-40; where the traffic is classified, which constitutes specifying an identifier, and the discussion of guaranteed bandwidth for certain identifications constitutes reservation. Receiving this message is implied.). Awadallah does not specifically teach the comparisons of the session IDs, and if they match, sharing the resources between the two sessions. Primak teaches the comparison of the session group ID associated with the second resource message with the stored session group ID specified by the first resource reservation message; and if the two session group IDs match, sharing the resources reserved for use with the first session with the second session (column 3, lines 2-5; column 8, lines 24-47; where the resources are inherently shared between sessions because requests with the same session ID are routed to the same server.). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Primak in the system of Awadallah, because they are both from the same field of endeavor, namely the efficient routing of resources for network sessions. The motivation for combining the teachings lies in the fact that Primak's teaching adds further efficiency to Awadallah's invention in the event of routing sessions with duplicate session IDs.

As per claim 10, Awadallah in view of Primak teaches the method of claim 9 wherein the session group identifier associated with a given session includes a source address of an entity sourcing the traffic flow and a resource identifier (ID) (Awadallah: column 6, lines 46-65).

As per claim 14, Awadallah teaches in a sourcing entity interconnected with two or more receiving entities by a computer network having a plurality of intermediate network devices, the devices having one or more resources for use in forwarding network traffic corresponding to sessions, a method for sharing resources reserved for a first session with a second session the method comprising the steps of: generating a first resource reservation message associated with the first session (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence and generation of a message based on session criteria); loading the first resource reservation message with a session group identifier (ID) (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence and loading of a message based on session criteria); sending the first resource reservation message with the session group ID toward a first receiving entity (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence of a message based on session criteria, which will be sent to a receiving entity to decide sourcing prioritization, for example.); generating a second resource reservation message associated with the second session (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence and generation of a message based on session criteria); loading the first resource reservation message with the session group identifier used in the first resource reservation message (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence and re-loading of the first message based on session criteria as many times as needed.); sending the second resource reservation message with the session group ID toward a second receiving entity (figure 3; column 4, lines 25-40; where the inherent instructions to reserve resources implies the existence of a message based on session criteria, which will be



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sent to a receiving entity to decide sourcing prioritization, for example.). Awadallah does not specifically teach the sharing of resources between first and second sessions. Primak teaches the sharing of resources reserved for use with the first session, with the second session (column 3, lines 2-5; column 8, lines 24-47; where the resources are inherently shared between sessions because requests with the same session ID are routed to the same server.). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Primak in the system of Awadallah, because they are both from the same field of endeavor, namely the efficient routing of resources for network sessions. The motivation for combining the teachings lies in the fact that Primak's teaching adds further efficiency to Awadallah's invention in the event of load balancing between requests with the same session IDs.

As per claim 15, Awadallah in view of Primak teaches the method of claim 14, but does not specifically teach the generation of a resource identification value and generation of the session group ID based on this value. It would have been obvious to one of ordinary skill in the art to include this limitation, as the generation of nicknames or values, followed by the assignment of these nicknames or values to certain objects is not novel. Databases employ this principle, and support the generation of objects based on their nicknames or values.

As per claim 16, Awadallah in view of Primak teaches the method of claim 15, wherein the session group ID includes a source address of the sourcing entity and the resource ID (Awadallah: column 6, lines 46-65).

Claims 4, 5, 11-13, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah in view of Primak, in further view of Chiu (U.S. 6,744,767).

As per claim 4, Awadallah in view of Primak teaches the intermediate network of claim 3, but does not specifically teach the use of the RSVP specification standard and Path message as a means of session identification. Awadallah also teaches the use of the network path in a session ID (Awadallah: column 6, lines 46-65), but does not specifically teach the RSVP specification standard used in the session ID. Chiu teaches the use of the RSVP specification standard (column 1- line 55 – column 2, line 5), where the discussion of differentiating services by flow, and specifically, RSVP's hop-by-hop protocol, constitutes the identification of sessions by path. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the RSVP specification standard into the session IDs for a network session, as taught by Chiu in the system of Awadallah in view of Primak, as they are all from the same field of endeavor, namely the efficient routing of network resources. The motivation for doing so lies in the fact that the RSVP specification standard adds further efficiency to session identification by adding a specific routing history.

As per claim 5, Awadallah in view of Primak, in further view of Chiu teaches the intermediate network device of claim 4 wherein the first and the one or more second sessions carry voice information (Awadallah: column 5, lines 8-25; where the discussion of multiple users implies multiple sessions that carry voice information).

As per claim 11, Awadallah in view of Primak, in further view of Chiu teaches the method of claim 10, wherein the first resource reservation message is a Path message in accordance with the Resource Reservation Protocol (RSVP) specification standard that has been configured to carry the resource ID (Chiu: column 1, line 55 – column 2, line 5; where the use of network path to create a session ID is discussed by Awadallah.). The configuration of RSVP to

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contain the resource ID is inherent by the fact that it already contains hop-by-hop information, which can include resource IDs. Motivations to combine teachings are discussed in the discussion of claim 4.

As per claim 12, Awadallah in view of Primak, in further view of Chiu teaches the method of claim 11, wherein the second resource reservation message is a RSVP Resv message corresponding to the second session (Chiu: column 1, line 55 – column 2, line 5). Motivations to combine teachings are discussed in the discussion of claim 4. The use of an RSVP message corresponding to the second session is obvious, as taught by Chiu in the system of Awadallah in view of Primak.

As per claim 13, Awadallah in view of Primak, in further view of Chiu teaches the method of claim 11, but does not specifically teach the use of the resource ID in the RSVP Path message. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as the existence of the resource ID in the RSVP Path message is necessary to allow for identification of the particular session corresponding to the RSVP Path message. Without proper identification, the RSVP Path message would be rendered useless, as it would be unknown to which session or resource the RSVP Path message corresponds.

As per claim 17, Awadallah in view of Primak, in further view of Chiu teaches the method of claim 14, wherein the first and second resource reservation messages are Path messages in accordance with the Resource Reservation Protocol (RSVP) specification standard that have been configured to carry the resource ID (Chiu: column 7, lines 18-22; column 1, line

55 – column 2, line 5). Motivations to combine teachings are discussed in the discussion of claim 4. All inventions are from the same field of endeavor, which is a further motivation.

As per claim 18, Awadallah in view of Primak, in further view of Chiu teaches the method of claim 17, but does not specifically teach the use of a call-waiting context within sessions. In view of Awadallah's discussion of VoIP (Awadallah: column 6, lines 38-45), it would have been obvious to one of ordinary skill in the art at the time of the invention to include this capability, as it is well known in the art. Awadallah discusses Internet telephony (column 1, lines 29-31), and since a call waiting context is well known in the art of Internet telephony, it would have been obvious to include this teaching specifically.

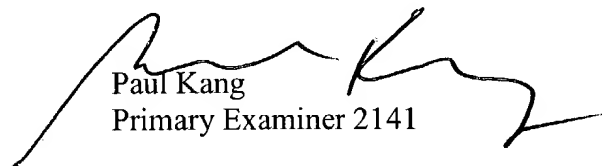
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 703/605-1228. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703/305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703/872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tanim Hossain  
Patent Examiner  
Art Unit 2141

  
Paul Kang  
Primary Examiner 2141